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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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| 10/089,006 | 05/22/2002 | Timothy William Grinsted | | 4595 |

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EXAMINER

LEE, JONG SUK

| ART UNIT | PAPER NUMBER |
|----------|--------------|
|----------|--------------|

3673

DATE MAILED: 02/03/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/089,006

Applicant(s)

GRINSTED, TIMOTHY WILLIAM

Examiner

Jong-Suk (James) Lee

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A¹ SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 04 December 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 18-35 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 32-35 is/are allowed.
- 6) ☒ Claim(s) 1-24 and 27-31 is/are rejected.
- 7) ☒ Claim(s) 25 and 26 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ 6) ☐ Other: _____

DETAILED ACTION

1. The amendment filed on December 4, 2003 has been entered.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 18-24 and 27-31 are rejected under 35 U.S.C. 103(a) as being unpatentable over Grinstead'793 (US 4,802,793) in view of Reece'793 (US 4,329,793).

Grinstead'793 discloses a pipeline or cable plow comprising of: a plough body (10, 12), a tow rope attachment mechanism having a tow rope retention point (42) for the tow rope (43), means (37, 46, 50) for adjusting a position of the tow rope retention point relative to the plough body for altering the position at which a line of the tow rope retained by the tow rope retention point crosses a longitudinal axis of the plough body for allowing the plough to operate at a range of offset tow positions, a plough share (20) for penetrating a seabed as the plough share is pulled by the tow rope, wherein the tow rope attachment mechanism comprising of a bridle having two bridle limbs terminating at one end of at the tow rope retention point (42) and the other ends at the respective bridle limb retention points with the guides/holes at a pair of arms (44)

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therethrough and the pair of arms (44) being pivotable relative to the plough body about a vertical axis at its inboard end and providing a respective bridle rope attachment point at its outboard end to be extending laterally with respect to the plough (see Fig. 2) and/or longitudinally with respect to the plough for lifting position (see Figs. 6-7), the tow rope attachment mechanism further comprising means (37) for moving the bridle limb retention points relative to the plough body from respective towing positions to respective lifting positions, at least one steerable supporting skid (32) carried by a steering member (33, 34) controllable via the means for adjusting a position of the tow rope retention point relative to the plough body, means (53, 57) for adjusting ploughing depth by altering vertical distance between the supporting skids and the steering member and the steering member being able to be altered independently of the vertical distance between the supporting skid and the steering member (see Figs. 1-8; col.2, lines 2-68; col.3, lines 1-68; col.4, lines 1-53; col.5, lines 14-66).

However, Grinsted'793 fails to disclose or fairly suggest soil-engaging fins carried by the supporting skids. Reece'793 discloses a trenching plow including a pair of supporting skids (31) carrying the steerable soil engaging fins/blades (34) as depicted in Fig. 3 (see col.3, lines 54-68; col.4, lines 1-8).

Therefore, in view of Reece'793, it would have been obvious to one of the ordinary skill in the art at the time the invention was made to add the fins to the supporting skids in order to enhance the stability of the plough while being in use.

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Response to Arguments

4. Applicant's arguments with respect to amended claim 18 have been considered but are moot in view of the new ground(s) of rejection.

5. The arguments with respect to amended claims 32 and 34 are persuasive and therefore, the art rejections are withdrawn.

Allowable Subject Matter

6. Claims 32-35 would be allowable over the prior art of record.

7. Claims 25 and 26 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

8. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event,

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however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jong-Suk (James) Lee whose telephone number is (703) 308-6777. The examiner can normally be reached between the hours of 6:30 AM to 3:00 PM Monday thru Friday. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Heather C. Shackelford, can be reached on (703) 308-2978. The fax phone number for this Group is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (703) 308-2168.

J. Lee /jjl
January 31, 2004



Jong-Suk (James) Lee
Primary Examiner
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